

ESTABLISHED IN 1861

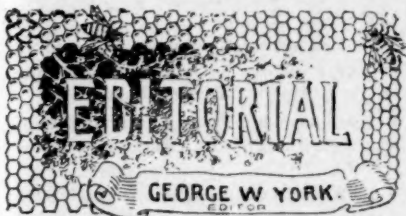
THE AMERICAN

OLDEST BEE-PAPER IN AMERICA

BEE JOURNAL

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— TO BEE-CULTURE. }

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Mrs. H. P. Langdon, of East Constable, N. Y., we regret to learn, died very recently, leaving a child but 8 weeks old. Bro. Langdon will have the sincere sympathy of bee-keepers everywhere, in his sad bereavement. The BEE JOURNAL desires to express to him its heart-felt condolence.

Orange Blossoms.—Mr. C. F. Greening, of Grand Meadow, Minn., but now spending the winter at Orange Park, Fla., has kindly sent us some of their fragrant orange blossoms, for which we wish to express our thanks. Before we opened the envelope containing the sweet-smelling blossoms, we could detect their presence by the delightful odor. How cheering and inspiring are "flowers, beautiful flowers."

Canadian Apiarian Statistics.
—We learn from a Canadian newspaper, that the last census returns show that about 200,000 colonies of bees are kept in the Dominion, of which 146,300 are in the Province of Ontario. The estimated average is 50 pounds of honey per colony, or 10,000,000 pounds per annum. That makes a pretty good showing for our "cousins," and especially for Ontario, which is the foremost Province in things apiarian.

Gathering Honey in Winter.—
In the *Free Lance* for Saturday, March 10th, published at Martinsburg, W. Va., we find the following about "the busy bee:"

It is seldom that you see bees gathering honey when the ground is covered with snow, yet this was observed on Sunday last. The warm sun had brought out the maple bloom, and with it, from their winter's repose, came the busy bee, soon to be engaged in carrying to her snug and cosy home the pollen and the honey. They began work nine days earlier this year than last, and 20 days sooner than in 1892.

The next thing will likely be a "winter strain of bees"—bees that will gather something every day in the year, regardless of the climate or location. We believe there is a song entitled, "Every Day'll be Sunday By-and-By." When that time comes, we probably will have bees that will store nectar day in and day out. That will indeed be "The Sweet By-and-By."

Majorities are not always right.—
Review.

The Bee-Keepers' Union.—W. Emmett Potts, of Edna, Kans., offers the following suggestion looking toward increasing the membership of the Bee-Keepers' Union, and also extending its usefulness and effectiveness:

EDNA, Kans., March 10, 1894.
BRO. YORK:—Wouldn't it be a grand scheme for the Bee-Keepers' Union, if there could be a member in each county in every State where bees are kept, and make the member one of the Board of Directors? It would give the Union about 2,500 members in as many counties, besides the bee-keepers that would join through the influence of the representative or director. Then we would have a good chance at those vile adulterators who do so much damage to our

pursuit. A great deal of cheap honey is sold throughout Kansas, and we can't find out where it comes from, either. I suppose it is all right to sell impure articles, provided it says so on the package.

I believe if the right steps were taken we could get some good bee-keeper in each county who would join the Union, and be made one of the Board of Directors; that would give the Manager a better opportunity to fight the violators.

What do you say about the matter, anyhow? I would like to hear through the columns of the BEE JOURNAL.

Yours truly,

W. EMMETT POTTS.

Well, Bro. Potts, we don't know how a Board of Directors composed of 2,500 members could well be managed, but if they were once secured, no doubt means would be originated by which they could be properly and advantageously handled. Something ought to be done, we think, to increase the membership to such an extent that it would become a power in securing needed legislation for the protection of bee-keepers in their rights, and also against those who are injuring the reputation and sale of pure honey by flooding the markets with villainous adulterations.

There is no use in talking, producers of pure honey cannot successfully compete with sellers of glucosed mixtures, unless we have a law compelling such adulterations to be correctly labeled, as in the case of butterine, oleomargarine, etc. We believe that the Bee-Keepers' Union is the organization that should go forward in the work of getting the necessary laws enacted, and then help in their strict enforcement. Of course, all the bee-papers will mightily aid in all such efforts.

Perhaps General Manager Newman will have something to offer relative to the suggestion made by Bro. Potts, or any other plan that will extend the influence of the National Bee-Keepers' Union.

Convention Reports, as published in the BEE JOURNAL, seem to be worrying a certain contributor to the *Progressive Bee-Keeper*. Just read what he says about such reports:

I notice that a recent number of a certain bee-journal is given mainly to reports of various bee-keepers' associations, but please, Mr. Editor, do not think that I am hinting at the *Progressive*. What I wish to say is this:

I do not know how interesting these reports are to others, but to me a greater part is very dry reading. If there is any-

thing that is new and worthy of consideration brought out at a convention, editors should let the readers have it, but it is not very interesting to learn that Mr. A prefers the frames hanging crosswise of the hive, while Mr. B prefers them hanging the other way; and that C recommends putting the empty super under the one nearly finished, while D says it should be put on top; that Mr. Smart Aleck uses shade-boards, while Mr. Know-it-all prefers trees or vines for shade, etc.; for in all probability the individual who reads it will fix things according to his own notion, and according to circumstances.

A bee-journal (or any other journal) should be something like a fanning-mill, and its editor a good operator of the same, capable of sifting out the chaff and tares, and giving its readers the plump, round grains.

If we weren't pretty certain who wrote the above criticism, we'd say he shows unmistakable symptoms of natural laziness.

The idea of comparing a bee-paper to a "fanning-mill," and its editor the fellow to turn on the wind! And what for? Why, so that writers or readers like the above wouldn't have even the slight trouble of picking their "intellectual teeth" after "eating" the "plump round grains" of apicultural knowledge. What in creation is this world coming to, any way? Some people will soon want their food already digested, and given to them with a spoon during their sleep, as it would be almost too much trouble to wake up and also have to endure the digesting operations. True, true; "wonders will never cease!"

Not Editor.—We learn from Prof. Cook that the announcement we made on page 264 is a mistake. He is *not* to be the editor of the bee-department of the *Rural Californian*. He says he has no time for the work, and had so informed the editor of the above paper, notwithstanding which the *Californian* announced it practically as we had it on page 264.

Protection for Bees in Spring.—In the *March Review*, Bro. Hutchinson has this to say about the early spring management of bees:

Most of my readers know that I favor taking the bees from the cellar quite early, certainly as soon as the last of this month in ordinary seasons, and then protecting them for nearly two months. The advantages have been given several times in the *Review*, hence I will not use space in their repetition, but instead I will describe a

method of packing that I adopted last spring with pleasure and profit.

One objection to spring packing is that of the cost of the boxes or something to hold the packing material in position. Those that I used a year ago are certainly not open to that objection. They are made of culled shingles. First there is a frame or ring made from cheap lumber sawed up to the right lengths, and then split up into pieces two inches wide. These frames are about four inches larger each way than the outside of a hive. To the inside of a ring or frame are nailed the shingles in an upright position, the frame coming about the middle of the lengthwise way of the shingles. A few of the shingles at one end are cut three or four inches short, their lower ends resting upon a "bridge" placed upon that part of the bottom-board that projects in front of the hive. When this rim of shingles is placed over or around a hive, there is a space of nearly two inches between it and the hive. This space is filled with planer shavings.

The hive is now all protected except the top, and that is really the most important point. To protect this I first removed the cover and spread over the top a piece of oil cloth. I then put on a super filled with planer shavings, the shavings being kept in place by a sheet of heavy paper tacked to its lower side. In some instances I tacked a honey-board to the bottom of the super, laid a piece of *Review* paper on top of the honey-board, and then put the shavings on top of that, and this arrangement worked all right, the bees not gnawing the paper to amount to anything, but when I set a super right down on the frames with no honey-board between, and no oilcloth, the bees cut great holes in the stoutest kind of manilla paper in three days' time, and let the shavings all down amongst them. I had a "regular circus" getting off those supers, and how I should have laughed at any other man who would have cut up such a caper. Over the super is placed the hive-cover with a stone on top to keep the wind from blowing off the cover.

To keep the rain out of the packing, and the wind from blowing it away, narrow shingles were placed in a slightly slanting position against the sides of the super, their lower edges resting on the tops of the shingles, to which they were tacked with wire nails.

I now use a chaff hive as a little house for keeping my smokers, smoker-fuel, matches, and spring-bottom oil-can filled with kerosene oil. Don't keep these things in buildings; it is too dangerous.

Some More Boasting.—In the Toronto, Ont., *Empire* for March 6th, we find the following under the heading, "Bees and Honey:"

Hon. Mr. Angers, Minister of Agriculture, is making arrangements for adding to the experimental farm work a branch department for the encouragement of apiculture.

At the World's Fair Ontario alone secured more awards for its exhibits of honey and bee-keeping appliances than the whole of the United States, and more than all other countries combined.

A well-known authority on bee-keeping, Mr. Holtermann, of Brantford, writing to the Minister, says that the average Canadian honey is far superior to the product of the United States. Canada is capable of producing it in vast quantities, and it is a matter of regret that other provinces besides Ontario did not exhibit in this class at Chicago.

So Bro. Holtermann has also become intoxicated with Canadian enthusiasm, and makes queer statements! Just *why*, and in what respect, "average Canadian honey is far superior to the product of the United States," isn't explained. Well, it's rather hard to "explain" the existence of imaginary things, and that may be why no excuse is given for making the statement.

Also, what about the statement in the above clipping, where it says, "Ontario alone secured more awards for its exhibits of honey and bee-keeping appliances than the whole of the United States?" Some folks never could learn arithmetic, and that may account for their inability to add, subtract, etc.

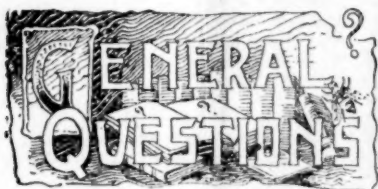
In the *Rural Canadian*, the same brother editor says this:

After recent triumphs of our bee-keepers at the World's Columbian Exposition, and after the distinction which we have always won when our honey was entered into competition with the world, I need not do any more than remind Canadians that Providence has richly endowed our land with the best climate, soil and flora, under which the choicest honey can be produced in paying quantities. No Canadian will wish to dispute this, no other dare do this.

How grateful Canadians ought to be, when they remember how "richly" a kind "Providence" has "endowed" their "land!" Why, bless you, we always thought that the same Providence was *also* on *this side* of the imaginary line that separates Canada and the United States, but we must have been mistaken, and so won't "dare" to "dispute" what Bro. Holtermann says!

It does beat all, how much enjoyment some people do get out of a vivid imagination! How glorious it does make them feel!

Visit the World's Fair for only 5 cents. See page 325.



ANSWERED BY

DR. C. C. MILLER,
MARENGO, ILL.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Foundation Used in Brood-Frames.

1. How much foundation will it pay to use in brood-frames?
2. What thickness or grade should it be? Weston, Iowa.

A. G. A.

ANSWERS.—1. There is some difference of opinion as to this, but I think most beekeepers agree that it pays to use full sheets. Brood-combs last so many years that one can afford a good deal in the first place to have them satisfactory, straight and all-worker.

2. If your frames are not wired, the heaviest foundation is none too heavy. If the frames or foundation are wired, medium brood-foundation will answer. With deep frames it is more important to have the foundation than with light frames.

Queens and Queen-Cells—Drone-Comb

1. Last year, about a week after one of my colonies cast a swarm, I heard a young queen piping in the cell at evening. The next morning I heard the same, but no queen out of the cell. That evening I heard a queen piping out of the cell, but none in, and the next morning I heard none—they did not swarm the second time, and I found no dead queens in front of the hive. I thought perhaps the bees wanted to swarm again, but had reared only one queen. Have you ever known a colony to do so?

2. What is the greatest number known of queens reared by one colony, under the natural swarming impulse?

3. I noticed in a reply not long ago, that bees would build more drone-comb where only starters are used than on full sheets of foundation. Would they build more drone-comb on starters than when built on empty frames?

4. Usually, or always, when a swarm with a young queen is united with a swarm with an old queen, either in a hive or in the air, the young queen gets killed. Is it

the old queen, or the bees, that kill her?
Chanhasen, Minn.

J. M. S.

ANSWERS.—I don't think I ever heard of a colony starting only one queen-cell at swarming, but such a thing is possible. It is also possible that a number of cells were in your hive, all of them considerably younger than the one that matured. You might not see the young queens when carried piecemeal out of the hive.

2. I don't know. I've read of forty queen-cells being reared at a time, and in a few cases many more.

3. I doubt if there would be any difference between empty frames and starters if the starters were small. For they will build only a limited amount in either case. Still, with starters of worker foundation they would have to change to drone, while with empty frames they could begin with drone-comb on some of the frames, so there might be more drone-comb with the empty frames.

4. I suppose you mean a young, virgin queen. The bees probably kill her.

Italian Queen in a Black Colony, Etc.

1. If I take a black queen from a colony of black bees, and put in an Italian queen, will all the bees coming from the Italian queen be pure Italian bees?

2. I have a colony of black bees in a box-hive. I want to transfer them to a movable-frame hive. When is the best time to do it?

J. Q.

Barrington, N. H.

ANSWERS.—1. Yes, it is generally considered so. There are some, however, who think the progeny of the queen will be affected by the nurse-bees.

2. During fruit-bloom is the time generally preferred.

Difference in Colonies—Placing Hives.

1. What makes some bees, when wintered in the cellar, cluster down close to the bottom-board, and an undue amount of dead bees which will die right in and around the cluster to such an extent as to block the entrance, which is large? What makes some colonies, when wintered in the cellar, keep nice and dry while others right by them are very wet and mouldy? My hives are all alike, with sealed covers.

2. Is two feet from center to center too close for hives to be placed? Will they do as well before swarming time, so close, as they would four feet apart? I have mine two feet in the spring after protection is useless. I move every other one back in a new row.

3. How do extensive bee-keepers have their hives arranged?
SUBSCRIBER.
Newton, Iowa.

ANSWERS.—1. One of the difficult things to tell, is why two colonies of bees apparently alike in all respects deport themselves so differently. One colony gives a

crop of 50 pounds, and another standing beside it, gives only 25, and yet you would say the two are exactly alike. The same with regard to wintering. Yet there must be a difference somewhere. The difficulty is to tell what it is. There may be a difference in the quantity or quality of their stores. Two colonies side by side don't by any means always work on the same kinds of flowers, and one of them may get some bad stores that the other doesn't touch. There may be a difference in the strength of the colonies. There may be a difference in the character of the bees themselves. Some are more quiet and contented than others, and a colony that is fidgety and stirred up all winter long is more likely to come to grief. J. R. Bellamy insists, with a fair show of reason, that there is a great difference in the longevity of bees, and a colony of bees so short-lived that funerals are constantly occurring cannot be expected to winter so well as one which retains its youth.

2. That's pretty close if the hives all look alike. If there are trees, posts, etc., to help mark the entrances, that will be better.

3. You might like this plan: Set two side by side. Then a similar pair with their backs to the first pair, thus making four in a group. Set the groups far enough apart to give comfortable working room between them.

Preventing Loss of Out-Apiary Swarms

I wish to run an out-apiary for extracted honey, visiting it once a week. What is the best way to prevent loss of swarms? I use the eight-frame dovetailed hive.

Shelton, Nebr.

A. W. S.

ANSWER.—That's a question that's agitating a good part of the bee-keeping fraternity. Some are very sanguine about self-hivers, some with regard to the Langdon non-swarmers, and quite a number report success by the use of the Alley queen-trap.

With a hive sufficiently large, there ought not to be much swarming if the combs are extracted once a week. The Dadants do not have more than from three to five per cent. of their colonies swarm, and they do not extract till the close of the harvest, adding supers of combs as they are needed. But they have hives with at least 9 Quinby frames, and to equal that you would need at least 12 of your frames.

Farmers as Bee-Keepers, Etc.

1. Mr. T. C. Kelly, on page 154, says that farmers should not keep bees. What is your experience, and that of the readers of the BEE JOURNAL in regard to a practical farmer keeping bees? Last spring I bought a few colonies and to-day I have but one colony left. I read in the bee-papers that last year was a bad year for bees. I do not expect to keep a great many bees, but I expect to buy more in the spring. I will not

be scared out by Mr. Kelly yet, although I have not had any success the first year.

2. How wide should the entrance be in hives wintered out-of-doors. J. R. S.
State Line, Ind.

ANSWERS.—1. A few days ago I talked to a farmers' institute, and advised every farmer to keep bees if there were none within two miles, for the sake of their fertilizing the flowers, even though they didn't get any honey. If the ground is not already occupied, each farmer must decide for himself, and he can not often decide without trying. Some have a taste for the business and will succeed; others will wish the bees were in Guinea.

2. I think most prefer to leave it open full width. If there's danger of mice getting in, put on wire cloth three meshes to the inch. This will not hinder the bees, but will hinder the mice.

The Drone a Queen Mates With.

Does a virgin queen ever mate with any drone of another colony? If not, why not?
Dorchester, Nebr.

F. C. L.

ANSWER.—As the queen mates high in the air, the supposition is that she seldom mates with a drone of her own colony. She is more likely to mate with a drone whose home is a mile, or two or three miles, away.


Painting Bee-Hives.

Is there any way that I can manage to paint my bee-hives that have the bees in them? They are in the cellar at present, and I want to re-paint them before I place them on the summer stands.

F. R.

Anamosa, Iowa.

ANSWER.—Yes, you could paint your hives before putting them on the summer stands, but I wouldn't. The gain in time would be trifling, and it will be much more convenient to paint them after they are on the summer stands. Paint at least the fronts in the evening after the bees stop flying, and use enough "drier" so there will be no danger of the bees sticking in the paint the next morning. The remainder of the hives can be painted any time.

 LEARN FROM OTHERS.—Great good will come from visiting and even working for a time with other bee-keepers. Note their methods, hives, sections, etc. Strive by conversation to gain new and valuable ideas, and gratefully adopt whatever is found, by comparison, to be an improvement upon your own past system and practice.—Prof. Cook.



CONDUCTED BY
MRS. JENNIE ATCHLEY.
 BEEVILLE, TEXAS.

Do All Pollen-Bearing Plants Furnish Honey?

The above question was asked me a short time ago, and I came very nearly forgetting it.

Yes, I do believe that all plants that furnish pollen yield honey, too, but some may only furnish a very small portion, or not enough to amount to anything; while some plants seem to give about half and half, as the peach-bloom. I have noticed that the bees gather about half pollen and half honey when working on peach-bloom. That is, each bee loads partly with both honey and pollen.

Horse-mint also furnishes a little pollen along with its abundance of honey, and I think that it will work the other way, too, and plants that produce nearly all pollen yield a little bit of honey also.

JENNIE ATCHLEY.

What Ailed the Bees?

MRS. ATCHLEY:—We have had some pretty cold weather, as cold as 20° below zero. You said you almost froze at your place with only one inch of ice. Just think of 20° below zero!

I have lost one colony of bees so far this winter. I think a mouse or something must have bothered them when it was so cold, causing them to break the cluster, and they froze. I was looking around the hives and found this one making a kind of humming sound, and now and then some of the bees would come out on the alighting-board, and of course it was death as soon as they left the cluster. As soon as a warm day came I looked them over, and everything was nice and clean. There was no signs of any mice. They had some honey in the super, and the brood-chamber was full of honey. I never had bees

do this way before. The colonies near this one were all as still as death.

Understand I never bother my bees when it is at all cold. I think at such times they should be let alone. I don't allow any jarring, or anything around the hives at this time of the year. This colony was as strong as any in the yard in the fall. I failed to find the queen, I think she was dead. I don't think the queen being dead would make any change in the bees at this time of the year, for I have had them go through the winter without a queen, all in good condition, and not give them any brood until April, and then have them do finely—no moths nor webs, but everything in fine condition. Now, when this colony was doing this way, it was 20° below zero. If you know what was wrong, I would like to have you tell me.

Riverton, Ills.

C. V. MANN.

Bro. Mann, I give it up, unless they had the diarrhea. Some good bee-keeper in the North will please tell us what was the matter with the bees.

JENNIE ATCHLEY.

How Bees Shape Cells.

I met a bee-keeper a few days ago who said he knew exactly how bees measured or laid out their comb cells. He said they did it with their legs. By watching closely when they are building combs, he said the bees could be seen measuring out the shape of the cells. What about this, anyway? What do the little Misses use for a pattern when building comb? Well, now, don't laugh, but tell us *just how* it is done.

JENNIE ATCHLEY.

Some Interesting Bee-Notes.

MRS. ATCHLEY:—Since my report of Aug. 19th, the bees that had been properly cared for have done fairly well. A nice shower of rain at the opening of smart-weed bloom gave a nice honey-flow for 10 days. All colonies at that time that were in good condition filled up the brood-chamber and stored a surplus of 34 pounds of extracted honey per colony. There are but few black bees that gathered enough stores to winter on. I could have extracted several hundred pounds more of honey than I did, but I was afraid of another long, cold and wet spring. My bees were in good condition for winter. Three days is the

longest they had been without a flight up to Jan. 10th.

I see so much about non-swarming and non-swarming bees. My experience is this: Any device that has a tendency to cripple or hinder natural increase or production, has a tendency to non-swarming, and whilst they are hindered in this way, it must have something to do with honey-gathering.

Bees are usually kept here in box-hives and round "gums;" when frames are used, the combs are as immovable as they are in the old-fashioned box-hive, with only a few exceptions.

I asked a man, who has a few colonies of bees, how they are doing. The answer was, "I don't know. I don't pay any attention to them; don't think they pay, though I brimstoned one before Christmas, and got 60 pounds of nice honey, and quite a lot that was dark and mixed with bee-bread."

"Didn't you hate to kill them?" I asked.

He replied, "No; no worse than any other thing that it is to be eaten, that has to be killed first."

Mrs. Atchley, I am a reader of the AMERICAN BEE JOURNAL, and am well pleased with it. The question departments are grand; the correspondence is very interesting—some articles being worth the whole subscription price to the BEE JOURNAL for one year. The biographical department was immense. I cannot but help feel grateful to Friend York for his prompt and excellent manner of conducting the BEE JOURNAL. What a vast store-house of knowledge I failed to get by not being a subscriber to the AMERICAN BEE JOURNAL from 1861 to the present time.

Bee-keeping has not been a gold or silver mine of wealth in this section for the last few years, neither has farming and stock raising, but they are not discouraged. The farmers were plowing here nearly every day from September to Jan. 10th.

W. A. MCGEE.

Rockville, Mo.

The Amateur Bee-Keeper,

is the name of a neat little pamphlet designed for the class its name indicates—amateurs and beginners in bee-keeping. It is written by Mr. J. W. Rouse, of Missouri, a practical apiarist and helpful writer. It contains over 60 pages, and we will send it postpaid for 25 cents; or club it with the BEE JOURNAL for one year—both for only \$1.15.



Feeding for Building Up for Fall-Flow.

Query 915.—Where the apiarist has a honey-flow in June, and another in October, with almost none at all the three intervening months, will it pay to feed through the month of September in order to build up for the fall flow? or will the bees build up anyway, where they have plenty of stores?—Enthusiast.

I have had no experience.—P. H. ELWOOD.

Keep the colony in good condition.—WILL M. BARNUM.

Try feeding, for I presume it will pay you.—J. H. LARRABEE.

If I had the time and means I would feed.—MRS. L. HARRISON.

Stimulative feeding at the right time will be beneficial.—A. B. MASON.

If the bees have plenty of stores, they will be strong enough for any fall flow that may come.—G. L. TINKER.

I would think it would pay. I would begin to feed five or six weeks before the beginning of the honey-flow.—M. MAHIN.

It is very doubtful if it would pay. Under the circumstances they would build up pretty well, anyway.—R. L. TAYLOR.

It would be an advantage to feed a little *regularly* to promote breeding, but not enough for the bees to store away.—J. P. H. BROWN.

That's outside of my experience, but I should think it depends on what that "almost" means. If breeding stops, then feed.—C. C. MILLER.

That is one of the questions that you can best test by a thorough trial. Usually, I think, the bees would be in good condition for such honey-flow.—C. H. DIBBERN.

If the bees have used up the June honey before the October flow commenced, then feed. If they have plenty of honey at any time, they don't want feeding.—E. FRANCE.

The brood would be increased some by feeding, but it would not pay. In case of no fall flow, it would be very unwise. I doubt if it ever pays to practice stimulative feeding.—A. J. COOK.

It will not pay, unless you are absolutely sure of a fall crop; but we would deem it safer not to feed in summer, as it incites robbing more than at other times of the year.—DADANT & SON.

If there is such a dearth of pasturage as to stop brood-rearing, or nearly so, and a prospect of quite a flow in October, it would likely pay to stimulate in August or September.—S. I. FREEBORN.

I do not feed my bees at any time when they have plenty of honey—it is a piece of foolishness. Should you wish to stimulate for a special purpose, uncap their honey.—MRS. JENNIE ATCHLEY.

It might pay in such a case to feed. Try feeding $\frac{1}{4}$ of the apiary, and one year will tell you whether this $\frac{1}{4}$ does enough better than the others to recompense for work and feed.—G. M. DOOLITTLE.

If I only knew who you are, where you live, how long your honey-flow lasted, what it consists of, etc., then I would know more about it. I don't know anything about October honey-flows.—H. D. CUTTING.

In the case mentioned, it will be found of no use to feed for stimulation. They will build up fast enough where they have ample stores. Feeding at the time mentioned, will be apt to cause swarming.—J. E. POND.

I think that would depend upon the length of the October flow, and the quantity gathered through the months of August and September. You could demonstrate by experiment, which would be the more profitable.—EUGENE SECOR.

That depends. The apiarist must judge for himself whether sufficient brood-rearing is going on. In many cases it would pay to feed, remembering that it will not pay to create a lot of bees that come too late to be producers.—J. A. GREEN.

It has been my experience that if they had plenty of stores they are always ready for the fall flow. I have had colonies with so much honey in the brood-chamber that the queen had no room, so I have never made it a point to feed unless compelled to do so, to save the colony.—JAS. A. STONE.

If the bees have plenty of stores to last them from the early to the late flow, it is a useless expense to feed them in

the meantime. But if their stores fail, as is sometimes the case in my locality (Kentucky), it pays to feed to keep breeding going until the fall flow commences.—G. W. DEMAREE.

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This little experiment will spoil a great deal of *mighty smart* learning (?) about bees manufacturing honey by means of their "heads" (glands) and "tails" (stings). Bah!

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The thin honey was evaporated under the best possible conditions, in a warm room under a draft of summer air to carry off the moisture as it escaped from the honey. After the thin honey became as dense as the naturally-cured honey, there was but little difference in the appearance of the two articles, when looking at them, but when dipped with a spoon and *poured*, the artificially evaporated article showed a "syrupy" consistency that is always absent when *pouring out* virgin honey. No expert apiarist can fail to recognize the difference between the *texture* of "whipped" syrup and pure virgin honey, and this difference does exist beyond question.

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Another difference is plainly apparent: When cold weather approaches, the artificially evaporated article will granulate before the usual time, and has a white, salvey, starchy appearance and texture never seen in the pure virgin article.

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The wax will be lighter if clean water is used when melting, as the water in which the combs are allowed to soak will be quite darkened by the soaking.

The combs should be melted in soft or rain water, in any kind of tin or copper boiler, the boiler kept about two-thirds full, and heated slowly to prevent boiling over. If the floor around the stove is kept wet, any wax that may drop, may be easily peeled off. During the melting, lower into the boiler a sieve made of a piece of wire-cloth bent in the

shape of a dipper, from which you will dip out the wax with a ladle as it strains into it. If the whole is thoroughly stirred and well heated with plenty of water, very little wax will be left.

The wax that is dipped out can be put into any kind of a vessel, and later on remelted with water and allowed to cool slowly to thoroughly purify it. The slower the wax cools, the cleaner it will be, as the impurities settle to the bottom. As a matter of course, cappings and bright combs can be rendered in the same way.

When wax is once damaged by burning, it is very difficult to bring it back to its natural color without the help of acids, and for this reason it is important to melt it properly the first time.

The above directions have been given by us to a number of our leading honey-producers who had found it difficult to render their combs properly, and we do not know of a single instance where they have not succeeded, when the directions were properly followed.

We would advise all bee-keepers to have a special vessel or boiler, in which to render up their wax, which should be used for no other purpose, for it is very difficult to cleanse a boiler that has been used for wax so as to employ it for other purposes, and the house-wife cannot be blamed if she objects to her wash-boiler being used in anything relating to the honey-bee.

Hamilton, Ills.

Sweet Clover—A Government Report.

The following description of sweet clover and also illustration, is taken from the "Report of the Botanist, Department of Agriculture, in 1884." It is perhaps the best picture of the plant ever printed in a bee-paper, and its description is very clear and full. We are indebted to Mr. M. M. Baldrige, of St. Charles, Ills., for both the descriptive matter and the engraving, as he had preserved it from an old Report issued by the Department of Agriculture seven or eight years ago, and brought it to us a short time since. Here it is in full:

MELILOTUS ALBA—Sweet Clover; Bokhara Clover

A biennial plant of the order Leguminosæ, nearly related to the clovers. It has a long, tough root which penetrates deeply in the soil, sending out its fibrous

branches long distances in search of nourishment. The first year of its growth it sends up a large group of stems from a single root. These reach a height of about 2 feet and are provided with an abundance of leaves. The second year it sends up more vigorous stalks, which



Sweet Clover—(*Melilotus alba*.)

develop many branches and grow to a height of 4 to 8 feet, according to the moisture which they are able to obtain from the soil.

The leaves are trifoliate or composed of three leaflets, of which the terminal one is short stalked and the lateral ones nearly or quite sessile. They have a common stalk or petiole generally less

than an inch in length. The leaflets vary in size; on the thrifty shoots of the first year they may be $1\frac{1}{4}$ to $1\frac{1}{2}$ inches long and $\frac{1}{2}$ inch wide, but generally they are about 1 inch long, of an oblong or oblanceolate form, with the margins finely toothed.

It begins to branch quite low and continues producing many slender branches to the top. The smaller subdivisions of these branches, from 3 to 6 inches in length, are occupied with the flowers and finally with the seed. The flowers are arranged on these branches in spikes coming out irregularly but pretty uniformly for the whole distance. They are very small, white, on very short pedicels, and reflexed or bent backward. They have the general structure of flowers of the order to which they belong, but the parts are so minute that they need some magnifying power to see all the details. They have a 5-toothed calyx, 5 irregular petals, 10 stamens, 9 of which are grown together so as to form a band, the 10th stamen free, with a small membranous, wrinkled, usually 1-seeded pod. These pods are very small, but as there are great numbers of them on the branches the result is a pretty large yield.

The plant is a native of the southern parts of Europe and Western Asia. From its prevalence in the latter situation it receives the name of "Bokhara clover."

It has been cultivated to some extent in Europe, but is there considered greatly inferior to red clover on account of the large proportion of coarse and in-nutritious stalks. On soils that are suitable for red clover this plant will give better satisfaction, but it is said to be adapted to poor soils, and not only to yield a heavy crop of forage, but to be very useful for plowing under to enrich the soil.

In some parts of the South it has recently been considerably cultivated and apparently with satisfactory results. Bees are said to be very fond of the flowers, and hence it has been recommended as a honey-producing plant.

The following letter from Dr. R. H. Duggar, of Gallion, Hale County, Alabama, gives an account of his acquaintance with the plant and his estimation of its value:

GALLION, HALE CO., ALA.

With reference to the plant sweet clover, sometimes called wild lucerne, but more properly "*Melilotus alba*," or "Bokhara clover," I will state that about 15 years ago I was attracted to it by



CONDUCTED BY

MRS. JENNIE ATCHLEY.

BEEVILLE, TEXAS.

Do All Pollen-Bearing Plants Furnish Honey?

The above question was asked me a short time ago, and I came very nearly forgetting it.

Yes, I do believe that all plants that furnish pollen yield honey, too, but some may only furnish a very small portion, or not enough to amount to anything; while some plants seem to give about half and half, as the peach-bloom. I have noticed that the bees gather about half pollen and half honey when working on peach-bloom. That is, each bee loads partly with both honey and pollen.

Horse-mint also furnishes a little pollen along with its abundance of honey, and I think that it will work the other way, too, and plants that produce nearly all pollen yield a little bit of honey also.

JENNIE ATCHLEY.

What Ailed the Bees?

MRS. ATCHLEY:—We have had some pretty cold weather, as cold as 20° below zero. You said you almost froze at your place with only one inch of ice. Just think of 20° below zero!

I have lost one colony of bees so far this winter. I think a mouse or something must have bothered them when it was so cold, causing them to break the cluster, and they froze. I was looking around the hives and found this one making a kind of humming sound, and now and then some of the bees would come out on the alighting-board, and of course it was death as soon as they left the cluster. As soon as a warm day came I looked them over, and everything was nice and clean. There was no signs of any mice. They had some honey in the super, and the brood-chamber was full of honey. I never had bees

do this way before. The colonies near this one were all as still as death.

Understand I never bother my bees when it is at all cold. I think at such times they should be let alone. I don't allow any jarring, or anything around the hives at this time of the year. This colony was as strong as any in the yard in the fall. I failed to find the queen, I think she was dead. I don't think the queen being dead would make any change in the bees at this time of the year, for I have had them go through the winter without a queen, all in good condition, and not give them any brood until April, and then have them do finely—no moths nor webs, but everything in fine condition. Now, when this colony was doing this way, it was 20° below zero. If you know what was wrong, I would like to have you tell me.

Riverton, Ills.

C. V. MANN.

Bro. Mann, I give it up, unless they had the diarrhea. Some good bee-keeper in the North will please tell us what was the matter with the bees.

JENNIE ATCHLEY.

How Bees Shape Cells.

I met a bee-keeper a few days ago who said he knew exactly how bees measured or laid out their comb cells. He said they did it with their legs. By watching closely when they are building combs, he said the bees could be seen measuring out the shape of the cells. What about this, anyway? What do the little Misses use for a pattern when building comb? Well, now, don't laugh, but tell us *just how* it is done.

JENNIE ATCHLEY.

Some Interesting Bee-Notes.

MRS. ATCHLEY:—Since my report of Aug. 19th, the bees that had been properly cared for have done fairly well. A nice shower of rain at the opening of smart-weed bloom gave a nice honey-flow for 10 days. All colonies at that time that were in good condition filled up the brood-chamber and stored a surplus of 34 pounds of extracted honey per colony. There are but few black bees that gathered enough stores to winter on. I could have extracted several hundred pounds more of honey than I did, but I was afraid of another long, cold and wet spring. My bees were in good condition for winter. Three days is the

longest they had been without a flight up to Jan. 10th.

I see so much about non-swarming and non-swarming bees. My experience is this: Any device that has a tendency to cripple or hinder natural increase or production, has a tendency to non-swarming, and whilst they are hindered in this way, it must have something to do with honey-gathering.

Bees are usually kept here in box-hives and round "gums;" when frames are used, the combs are as immovable as they are in the old-fashioned box-hive; with only a few exceptions.

I asked a man, who has a few colonies of bees, how they are doing. The answer was, "I don't know. I don't pay any attention to them; don't think they pay, though I brimstoned one before Christmas, and got 60 pounds of nice honey, and quite a lot that was dark and mixed with bee-bread."

"Didn't you hate to kill them?" I asked.

He replied, "No; no worse than any other thing that it is to be eaten, that has to be killed first."

Mrs. Atchley, I am a reader of the AMERICAN BEE JOURNAL, and am well pleased with it. The question departments are grand; the correspondence is very interesting—some articles being worth the whole subscription price to the BEE JOURNAL for one year. The biographical department was immense. I cannot but help feel grateful to Friend York for his prompt and excellent manner of conducting the BEE JOURNAL. What a vast store-house of knowledge I failed to get by not being a subscriber to the AMERICAN BEE JOURNAL from 1861 to the present time.

Bee-keeping has not been a gold or silver mine of wealth in this section for the last few years, neither has farming and stock raising, but they are not discouraged. The farmers were plowing here nearly every day from September to Jan. 10th.

W. A. MCGEE.

Rockville, Mo.

The Amateur Bee-Keeper,

is the name of a neat little pamphlet designed for the class its name indicates—amateurs and beginners in bee-keeping. It is written by Mr. J. W. Rouse, of Missouri, a practical apiarist and helpful writer. It contains over 60 pages, and we will send it postpaid for 25 cents; or club it with the BEE JOURNAL for one year—both for only \$1.15.



Feeding for Building Up for Fall-Flow.

Query 915.—Where the apiarist has a honey-flow in June, and another in October, with almost none at all the three intervening months, will it pay to feed through the month of September in order to build up for the fall flow? or will the bees build up anyway, where they have plenty of stores?—Enthusiast.

I have had no experience.—P. H. ELWOOD.

Keep the colony in good condition.—WILL M. BARNUM.

Try feeding, for I presume it will pay you.—J. H. LARRABEE.

If I had the time and means I would feed.—MRS. L. HARRISON.

Stimulative feeding at the right time will be beneficial.—A. B. MASON.

If the bees have plenty of stores, they will be strong enough for any fall flow that may come.—G. L. TINKER.

I would think it would pay. I would begin to feed five or six weeks before the beginning of the honey-flow.—M. MAHIN.

It is very doubtful if it would pay. Under the circumstances they would build up pretty well, anyway.—R. L. TAYLOR.

It would be an advantage to feed a little *regularly* to promote breeding, but not enough for the bees to store away.—J. P. H. BROWN.

That's outside of my experience, but I should think it depends on what that "almost" means. If breeding stops, then feed.—C. C. MILLER.

That is one of the questions that you can best test by a thorough trial. Usually, I think, the bees would be in good condition for such honey-flow.—C. H. DIBBERN.

If the bees have used up the June honey before the October flow commenced, then feed. If they have plenty of honey at any time, they don't want feeding.—E. FRANCE.

The brood would be increased some by feeding, but it would not pay. In case of no fall flow, it would be very unwise. I doubt if it ever pays to practice stimulative feeding.—A. J. COOK.

It will not pay, unless you are absolutely sure of a fall crop; but we would deem it safer not to feed in summer, as it incites robbing more than at other times of the year.—DADANT & SON.

If there is such a dearth of pasturage as to stop brood-rearing, or nearly so, and a prospect of quite a flow in October, it would likely pay to stimulate in August or September.—S. I. FREEBORN.

I do not feed my bees at any time when they have plenty of honey—it is a piece of foolishness. Should you wish to stimulate for a special purpose, uncap their honey.—MRS. JENNIE ATCHLEY.

It might pay in such a case to feed. Try feeding $\frac{1}{4}$ of the apiary, and one year will tell you whether this $\frac{1}{4}$ does enough better than the others to recompense for work and feed.—G. M. DOOLITTLE.

If I only knew who you are, where you live, how long your honey-flow lasted, what it consists of, etc., then I would know more about it. I don't know anything about October honey-flows.—H. D. CUTTING.

In the case mentioned, it will be found of no use to feed for stimulation. They will build up fast enough where they have ample stores. Feeding at the time mentioned, will be apt to cause swarming.—J. E. POND.

I think that would depend upon the length of the October flow, and the quantity gathered through the months of August and September. You could demonstrate by experiment, which would be the more profitable.—EUGENE SECOR.

That depends. The apiarist must judge for himself whether sufficient brood-rearing is going on. In many cases it would pay to feed, remembering that it will not pay to create a lot of bees that come too late to be producers.—J. A. GREEN.

It has been my experience that if they had plenty of stores they are always ready for the fall flow. I have had colonies with so much honey in the brood-chamber that the queen had no room, so I have never made it a point to feed unless compelled to do so, to save the colony.—JAS. A. STONE.

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Hamilton, Ills.

Sweet Clover—A Government Report.

The following description of sweet clover and also illustration, is taken from the "Report of the Botanist, Department of Agriculture, in 1884." It is perhaps the best picture of the plant ever printed in a bee-paper, and its description is very clear and full. We are indebted to Mr. M. M. Baldrige, of St. Charles, Ills., for both the descriptive matter and the engraving, as he had preserved it from an old Report issued by the Department of Agriculture seven or eight years ago, and brought it to us a short time since. Here it is in full:

MELILOTUS ALBA—Sweet Clover; Bokhara Clover

A biennial plant of the order Leguminosæ, nearly related to the clovers. It has a long, tough root which penetrates deeply in the soil, sending out its fibrous

branches long distances in search of nourishment. The first year of its growth it sends up a large group of stems from a single root. These reach a height of about 2 feet and are provided with an abundance of leaves. The second year it sends up more vigorous stalks, which



Sweet Clover—(*Melilotus alba*.)

develop many branches and grow to a height of 4 to 8 feet, according to the moisture which they are able to obtain from the soil.

The leaves are trifoliate or composed of three leaflets, of which the terminal one is short stalked and the lateral ones nearly or quite sessile. They have a common stalk or petiole generally less

than an inch in length. The leaflets vary in size; on the thrifty shoots of the first year they may be $1\frac{1}{4}$ to $1\frac{1}{2}$ inches long and $\frac{1}{2}$ inch wide, but generally they are about 1 inch long, of an oblong or oblanceolate form, with the margins finely toothed.

It begins to branch quite low and continues producing many slender branches to the top. The smaller subdivisions of these branches, from 3 to 6 inches in length, are occupied with the flowers and finally with the seed. The flowers are arranged on these branches in spikes coming out irregularly but pretty uniformly for the whole distance. They are very small, white, on very short pedicels, and reflexed or bent backward. They have the general structure of flowers of the order to which they belong, but the parts are so minute that they need some magnifying power to see all the details. They have a 5-toothed calyx, 5 irregular petals, 10 stamens, 9 of which are grown together so as to form a band, the 10th stamen free, with a small membranous, wrinkled, usually 1-seeded pod. These pods are very small, but as there are great numbers of them on the branches the result is a pretty large yield.

The plant is a native of the southern parts of Europe and Western Asia. From its prevalence in the latter situation it receives the name of "Bokhara clover."

It has been cultivated to some extent in Europe, but is there considered greatly inferior to red clover on account of the large proportion of coarse and in-nutritious stalks. On soils that are suitable for red clover this plant will give better satisfaction, but it is said to be adapted to poor soils, and not only to yield a heavy crop of forage, but to be very useful for plowing under to enrich the soil.

In some parts of the South it has recently been considerably cultivated and apparently with satisfactory results. Bees are said to be very fond of the flowers, and hence it has been recommended as a honey-producing plant.

The following letter from Dr. R. H. Duggar, of Gallion, Hale County, Alabama, gives an account of his acquaintance with the plant and his estimation of its value:

GALLION, HALE CO., ALA.

With reference to the plant sweet clover, sometimes called wild lucerne, but more properly "*Melilotus alba*," or "Bokhara clover," I will state that about 15 years ago I was attracted to it by

noticing along some ditch banks, in comparatively poor soil, this plant growing vigorously; its deep, dark-green clover-like leaves ahead of other vegetation was specially noticeable.

I watched its growth and tried my horse to see if he would eat it. Passing along the same place again I observed where my horse had eaten before it had tillered out again with numerous vigorous shoots. A rain coming on soon afterwards, I sent my wagoner with a box and spade and had some dug up by the roots and put out at home in a Bermuda grass plat; and, although the tap-root was cut, it grew finely and produced seed abundantly. Some of it I cut and fed to the different animals—horses, cows, and hogs—I had then on my place; all seemed to eat it readily. (This, I am satisfied, however, is an acquired taste, for some stock will not eat it at first, but become very fond of it when *wilted*.) I cured some, and found that, like clover, lucerne, and the pea-vine, it would readily shed its green leaves in drying, hence it should be put away when partially dry only.

Stock seem to be very fond of it, and when cured will eat the very stalks with a relish, notwithstanding they appear so hard and uninviting. I presume it must cure with a reserved amount of sugary residue in the stalks and twigs, particularly if cut when just in bloom. The odor of the leaves when drying and the blooms are very sweet, and during this blooming stage the tops smell like a swarm of honey-bees. Considering it allied to lucerne, of which so much was written in the agricultural papers, I sent some specimens of the plant to the "editors" of the *Country Gentleman* for examination.

We have also growing with us during the winter and early spring another species of this same plant, called also sweet clover, *Melilotus vulgaris*, with a yellow bloom and strictly an annual; whilst one great recommendation of the plant *Melilotus alba* is its being a biennial growth, and if not grazed or mowed too closely and regularly, will reseed itself every second year, allowing two good cuttings of hay. I was for a long time at a loss to discover its origin, but meeting an old acquaintance, a former owner of the plantation where it first appeared, I was referred to Prof. H. Tutwiller, of "Greene Springs Academy."

Until the last six or eight years this plant was treated as a worthless weed by many of our farmers, and you well know how I have embraced its cause and advocated its more general use against

so much opposition; from a weed whose seed was not worth the gathering to many (though formerly I paid 25 cents per bushel for it) it is now worth \$2.50 to \$3 per bushel, and valued even with the oat crop.

There are many other uses to which this plant is applicable, not the least of which is its great value as a fertilizer, believed by some to be the equal if not superior to our common field pea. I could give many references of its value, but this letter is even now too long.

Yours very truly,

R. H. DUGGAR, M. D.

Queen-Bees Shipped by Mail.

Written for the American Bee Journal

BY W. P. FAYLOR.

In my last communication to the BEE JOURNAL I had something to say on the above-named subject, which has awakened considerable interest throughout the country. Mrs. Atchley accuses me of saying that "queens sent through the mails are no good." Now, I did not say that queens sent by mail are worthless; but what I wanted to say is, that queen-bees sent through the mails are not as long-lived, on the average, as queens that are not tossed about in Uncle Sam's mail-bags. Because the writer never received a queen through the mails that exceeded seven months in age, is no reason why some one else has not.

Some years ago, like a good many others, I caught the "yellow-bee fever," or "color craze," but have happily recovered. It was then that I annually ordered a light-colored queen from some queen-breeder, and kept crossing strains for several years. But to the subject.

One summer I ordered a high-priced breeder. When she came to hand with her attendants I was highly delighted, but when I discovered that she could lay so very sparingly, I immediately wrote the facts to the breeder. As the queen had been reared late the previous autumn, I thought, perhaps, the cause of her weakness was the unfavorable time for rearing so as to mate with hand-picked drones late in the fall might be the cause of her impotence. He thought I was mistaken.

Next I examined the cage in which she had been shipped, and found a sharp little tack projecting into one of the chambers, and immediately wrote the facts to the shipper. His reply was—"Off again." He further stated she had

been injured by the sudden stoppage in egg-laying and jarring through the mails.

I could enumerate many instances which turned out the same as the one above-mentioned. A year ago last spring I received a very beautiful queen from Texas, which, after keeping in a very weak colony for three months, disappeared. Last season for the first, for some time, I wasted no money for queens through the mails. But I would not discourage, altogether, the purchasing of queens by mail. It is a convenient and cheap way of transmitting to destination, and many a queen has paid for herself in a few months during the working season. Even from a poor layer we can get enough fine drones to distribute throughout the apiary, and an occasional infusion of new blood may pay, after all, in the long run.

CAUSES OF INJURY IN CAGES.

1st. The first cause is dampness, or having the food too moist, so as to wet the cage, or get the feet and abdomens of bees and queen wet and sticky. If the food in the cage is dry enough so that the queen and bees will go through about half-starved, generally every attendant bee will go through alive. Experimenting on this line, I have made the candy pretty moist, then put a dozen worker-bees into the cage and sent them off four or five hundred miles to some one as samples. The result would invariably be a majority of bees dead.

Again, I have made the food so dry that the bees could only eat very sparingly, and the universal verdict would be, "Every bee arrived alive." Bees, when shaken about, are apt to fill themselves quickly, and, if confined, this results in injury, and is a cause of shortening longevity.

2nd. The sudden changes in temperature is another cause of injury. When the queen-cage is taken from the mail-bag and placed in the post-office box, often in the evening, and the temperature lowering during the night with so few bees to keep up the heat of the miniature colony, the result could not be good under such varying changes in temperature. With a nucleus or colony by express, the change is not so harmful.

3rd. The sudden stoppage in egg-laying is another fruitful source of harm and injury to the mother-bee. If a queen be laying at the rate of two or three thousand eggs a day, and suddenly her home is changed from combs to a little house of wood, the change is not

for the better. I know that this worked detriment to the progeny of two dozen choice laying hens that were confined to a coop on a wagon last summer for seven days. They were cooped just when they had fairly begun laying. If such treatment will do injury to something as strong as a laying fowl, it certainly will injure something as delicate as a queen-bee. Hence, a queen that is just beginning to lay will be less liable to injury in this respect while being transmitted through the mails, than one that is laying at a rapid rate at the time of caging. Therefore, remember to always order very young queens by mail. If you are going to buy a \$10 breeder, pay a dollar or two more and have her sent by express.

Updegraff, Iowa.

An Experience in Moving Bees.

Written for the American Bee Journal

BY JAS. A. MINNICK.

On page 249, Mr. C. H. Coleman asks information about moving his bees. I will give my experience, as I moved 14 10 and 12 frame colonies 12 miles on a wagon in August, 1890; 5 colonies were in 10-frame chaff hives, and 9 in 12-frame Langstroth portico hives. They were very heavy with honey, and very strong with bees.

I securely nailed a piece of wire-cloth over the entrance, and removed the cover and fastened a piece of wire-cloth over the entire top of the hive by placing the wire-cloth on and nailing thin narrow slats over it. I would say that I securely fastened the brood-frames in place by driving a thin 3-penny nail through the ends of each top-bar; this is not necessary where fixed frames are used.

I next placed a common hay-ladders on a wagon, and put on a foot or more of hay, spreading it as evenly as possible. It should be at least a foot deep after it is packed down.

I then placed four fencing-plank 1x6 inches lengthwise of the wagon, and upon them I placed two rows of the hives with the entrances outward, and lashed them together by placing a scantling lengthwise of each row half way between the entrances and tops of the hives. Now I firmly bound the ends of the scantling together with clothes-line, also across the center, and again secured them to the standard of the wagon.

Boards can be laid lengthwise on top

of the hives, and two rows more placed on top and lashed as before. I would say, however, that I firmly nailed a short board across the ends of the plank that were laid on the hay.

I never cracked a comb, nor killed any bees, and, remember, it was in August, and they were very strong with bees.

On a wagon the combs will fare *much better* placed crosswise than lengthwise, but on the cars they should be placed parallel to the car, or the ends of hives should be in line with the engine.

Great care should be exercised to have each hive well closed so that no bees can fly out and cause trouble with the team. The horses should not be hitched up until *after* the bees are loaded, and again should be unhitched before unloading the bees.

In moving bees in the spring it may not be necessary to put wire-cloth over the entire top of the hive, but it should have some, as the narrow entrance may get clogged up with bees, and the colony smothered. A gentleman sent me 5 colonies on the cars, with no ventilation at the top of the hives, and 2 colonies were smothered on arrival.

They should not be moved until spring—say in April.

Anderson, Ind.

Skunks and Ants—Farmer Bee-Keepers.

Written for the American Bee Journal

BY BRO. BEN.

In looking over some of the issues of the BEE JOURNAL of the past few months, I found one in which Mrs. Atchley tells of the great destruction a skunk will do in the apiary, and asked for means by which the pest may be destroyed. I have seen several replies, all of which may be very good, but not one of these have given the plan which I learned by long years of practice as a trapper.

The old trapper who gives poison in lumps of lard or tallow is about right, so far as he goes, but I found to my cost once that it is unsafe. If you have a little fresh cut or open sore on your hand, the least wind might put enough poison there to do great injury. A safer way would be to sit down by some table where there is no wind to blow on you. Take a G. D. gun cap and put your poison in that; push a piece of tallow down on it, and lay in a vessel of some kind, and with a knife press the tallow

over the cap, and the bait is ready. Prepare all your baits in this way.

Now take any kind of fresh meat that will leave a scent, and go away from your apiary, say 400 yards; do this just before nightfall. Now put down a piece of old honey-comb, or anything a skunk will eat, and on top of this put one of the baits. Then tie a string or rope to your fresh meat, and drop it upon the ground near your bait, and drag it around the apiary, stopping every 100 yards or so to leave a bait in the trail, and so continue until you have made the circuit. No skunk will ever pass this trail without following it to a bait, and if all the feed is gone, it will probably travel around and around the apiary until too late to visit it that night, and then you will be ready for him the next night by going through the same performance.

If this circle is too great, you need not go so far from the apiary—just go far enough to be out of reach of the chickens and poodle-dog.

A skunk-trap is made thus: A barrel set in the ground full depth, with the head used for a lid, made small enough to revolve within the barrel, made into a trap-door, and then covered by a box 3x4 feet. This makes a good trap for skunks. The box needs no lid, and is turned down over the barrel. Make a hole in one end of the box 4x6 inches, place this hole close to the barrel, and put some honey or drone-comb in the other end of the box. The barrel should be $\frac{3}{4}$ full of water to drown the skunk. As a rule, there will be no bad odor where they are caught in this manner. Turn the box mouth upward on top of the trap during the day, to keep the chicks out.

KEEPING ANTS FROM THE HIVES.

To prevent ants from going into the hive, put the bench legs in cans of water instead of daubing with tar. If the bees get in, put in a little kerosene oil. Do not set the hives under vines or trees, as the ants will climb and drop off on them. If you want shade, furnish it by placing boards on the hive.

FARMERS KEEPING BEES.

I have bought my honey for the past few years of a farmer, and get honey good enough for a king to eat. Farmers should produce all they eat, both of sweets and other food. I often see some article in the BEE JOURNAL which says we should not keep bees, but I have yet to see the first sensible reason why we

should not. Let those fellows who think so, just say why not.

Our bees are wintering nicely on the summer stands, with a muslin sheet and three or four thicknesses of woolen cloth over it, and the top story set on. Around the lower hive is perhaps a dozen thicknesses of newspapers, a heavy cardboard, and over this boards leaned up to keep all in place.

Grant Centre, Iowa, Feb. 19.

Wolfberry Honey—Bees in Cold Climate.

Written for the American Bee Journal

BY S. B. SMITH.

It is a dull time now for bee-keeping as well as other vocations, and as I have a little leisure I will fulfill a promise I made last summer in regard to the quality of the honey gathered from a flower that I sent a sample of to the editor of the BEE JOURNAL to ascertain its name.

This flower (wolfberry) produces a very clear, light-colored honey, very beautiful to look at, but I think not as sweet as clover honey. I took some of this honey and some golden-rod honey to the Fair last fall, and received the first premium. I set out some of both kinds for the judges and others to test, and about 8 per cent. of the people pronounced the golden-rod honey the better. I think I never saw as good golden-rod honey as I had last year.

My honey yield was 130 pounds in one-pound sections from 3 colonies, and I consider this a good yield for this section. I suppose our Southern neighbors will laugh at this small yield, but they must remember that we are about as near the North Pole as we can live and keep bees.

Our honey season is short, and the winters are long and cold. I put my bees into the cellar on Nov. 21st, and do not expect to put them out before April 15th. They had a flight about Nov. 10th. They are in good condition now (Feb. 20th), being very strong, as they did not swarm last season. In all of my experience I never knew a season when so few swarms issued as last season in this section. There are a number of bee-keepers here that did not have a swarm issue last year.

There is a good home market for honey here. I sold all of my honey for 18 and 20 cents per pound. I sow a small amount of Alsike clover every year for my bees to work on, and I find

it pays. It will keep in bloom longer than any flower we have here.

Last year I sent to Utah for some of the Rocky Mountain bee-plant seed, and will give it a trial the coming summer. Honey-producing flowers are rather scarce here. The first flower we have in the spring is the wild crocus, which furnishes pollen, but I think not much if any honey. Then follow the willow and plum blossoms. It is too cold for apple-trees here, so we are deprived not only of the beautiful sight of an apple orchard in bloom, but of the fruit also. Groves of wild plums are very abundant.

There is much suffering here this winter among the poor, and many families—among them many farmers—that are supported by charity, and unless we have better prices soon, many farmers will be ruined.

Keeville, Minn.

Ontario Honey at the World's Fair.

Written for the American Bee Journal

BY R. M'KNIGHT.

EDITOR YORK:—A few weeks ago you passed some strictures on what I wrote in the *Canadian Bee Journal* about Canadian honey at the World's Fair. I replied in a private note (which I have since given you permission to publish). I intended that note to be all I should say on the subject, but Mr. Cutting's article on page 274 compels me to forego my decision, or lie under a series of charges, which, if true, I would deserve all the uncomplimentary things he deems himself justified in saying of me.

Mr. Cutting declares my mention of Dr. Mason's name, "is not only a slur on Dr. Mason, but to many other American honey-producers." There is one American bee-keeper who will not consider what I said in any way personal; and that one is Dr. Mason himself. He will know that what I said was a very natural sequence to a long discussion (and a good-natured one, too), which he and I had years ago on the relative merits of United States and Canadian honey.

By way of parenthesis I desire here to extend to Dr. Mason my sincere sympathy in his affliction, and to express the hope that he will soon be restored to his wonted health, and that his genial presence may light up the proceedings of many a future meeting of bee-keepers.

My "article is one mass of misstatements," says Mr. Cutting; my article is one mass of correctly compiled statistics,

say I in reply. It is Mr. Cutting, and not I, who makes the "misstatements." Will he please remember I was enumerating the awards on *honey*, and not on honey and everything pertaining to the honey industry?

He even charges me with doing an injustice to Ontario, by crediting with 14 instead of 16 awards. Why should smokers, drone-traps, hives, and the rest of the *et ceteras* be taken into account, or get credit in a test of the quality of honey? Will Mr. Cutting point out a single State I failed to credit with all the awards it received on honey? If he cannot do this, how can he reconcile his charge with the facts as they exist? When he undertakes to read me a sermon he should stick to the text. I notice he aims a number of side thrusts at me, but as they don't strike, they don't need to be parried.

And you, sir, in your foot-note tell me to "get down off my high horse and offer an apology." Why should I dismount? Wherefore doff my hat? and to whom do I owe an apology? Should I offer an abject apology for an offense I have not committed, or that I am unconscious of having committed? I have stated that Ontario honey is the best in the world in the aggregate of the country's output. I have reiterated that statement, and I believe it to be true, on the evidence of my own senses, on the result of my own observation, which is as varied and extensive as that of most men in the business; and on subsidiary evidence as well.

It has been my privilege to taste of honey from nearly every corner of the earth. I saw the display at the World's Fair in Chicago. I saw the display at the Toronto show, a month after; and for uniformly high quality and fine finish, Chicago was simply nowhere in the race. This statement will be endorsed by every one who saw the two. You may call this boasting—I call it an honest statement of fact, for which I have no disposition to apologize.

Owen Sound, Ont.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for \$1.40.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us.



The Vermont State Convention.

Written for the American Bee Journal

BY H. W. SCOTT.

(Continued from page 344.)

FORENOON SESSION—JAN. 25TH.

The members went to the Vermont State experimental farm especially to examine the new bee-house, which has been built there for experimental purposes. It is 16x30 feet, with 10-foot posts, well finished, slatted and painted. The east side is arranged to be used as a house-aplary, and accommodates 24 colonies of bees on two shelves. The west side is the work shop and a honey-room. On the southeast of the house it is proposed to place those bees worked out-doors. Around three sides a pine or other suitable evergreen hedge is to be set out. There are now 11 colonies of bees in the house, and some more will be added in the spring. Any one is at liberty to send a colony as soon as they can be shipped in the spring. Recommendations and suggestions for experiments are solicited, and those received will be submitted to the full committee elected by the Association, for the digesting and arranging of such recommendations.

REPORTS OF COMMITTEES.

At 9 o'clock the members re-assembled, and listened to the reports of their committees as follows:

The committee on nominations reported the same board of officers for the next year, and they were elected as follows:

President—W. G. Larrabee, of Larrabee's Point.

Vice-Presidents—Addison County, E. J. Smith, of Addison; Chittenden, O. J. Lowrey, of Jericho; Franklin, F. M. Wright, of East Enosburg; Lamoille, J. W. Smith, of Moscow; Orange, M. F. Cram, of West Brookfield; Rutland, H. L. Leonard, of Brandon.

Secretary and Treasurer—H. W. Scott, of Barre.

The Committee on Resolutions respectfully submitted the following report:

Resolved, That we, as bee-keepers assembled, thank our Heavenly Father for the prosperity of this Association, and the increase of its usefulness in the advancement of our vocation and interests, and hope we may have many years of prosperity.

Resolved, That we express our deep appreciation of the recognition of apiculture by the Board of Control of the Experiment Station, and that we hereby thank them for favors granted.

WHEREAS, Our brother, R. H. Holmes, who has annually attended every convention of this Association since he became a member, and whose wise counsel and genial presence we so much miss at this time, has been detained at home by sickness in his family; therefore, be it

Resolved, That we extend our deep sympathy to our brother, and that we sincerely hope and pray that the sombre clouds may be rifted, and health and happiness may return to bless his home and loved ones.

WHEREAS, Also in the Divine plan, our friend, H. P. Langdon, is unable to be present with us, owing to sickness in his family; therefore, be it

Resolved, That we extend to him our sympathy for the condition in which his family is placed, and regret that his wife is so afflicted that he could not be with us.

Resolved, That we express our deep sense of gratitude to the Van Ness House for the use of this room, and the many advantages granted; also to the press for so full a report of the convention, and to the C. V. R. Co. for reduced rates given to those attending this convention.

WHEREAS, The production of honey in the United States of America is not nearly what it might be with better price for the producer; and,

WHEREAS, No better price can ever be gained by producing in competition with Cuba and other foreign countries where the cost of production is low; and,

WHEREAS, The present Congress has under consideration a Bill to reduce the present tariff on honey; therefore, be it

Resolved, By the Vermont bee-keepers, in convention assembled, that we do most earnestly protest against any reduction whatever in the present tariff on bees' honey; and, be it further

Resolved, That the Secretary do, and is hereby directed, to forward to our Senators and Representatives in Congress a copy of this resolution, with a request that the same be presented to the Senate and House of Representatives.

The foregoing Resolutions were adopted by a unanimous vote of the Association.

DIFFERENCE IN FLAVOR OF HONEY.

R. H. Holmes was unable to be present, but he sent in an excellent essay, which was read by the Secretary. In it he argued that there is a difference in the flavor of honey in different seasons and locations; and that it is explained the same way that the difference in plants and their nutritive qualities are explained.

H. L. Leonard—The difference in honey is affected by drouth more than by rain. The weather has a great deal to do with the flavor and looks of honey.

BEST MANAGEMENT OF BEES.

"How shall we manage our bees so as to get the most honey?"

E. J. Smith—Build them up early in the season. I practice stimulative feeding, and feed one-half pound regularly.

O. J. Lowrey—Early stimulative feeding is uncertain. Much depends upon the man. I prefer a hive full of brood to one full of honey at the beginning of the white honey-flow.

M. F. Cram—Don't let the heat escape from the brood in the spring.

SEVERAL QUESTIONS.

"Is it advisable to use one-half pound sections?" No.

"Is a uniform size of frame in an apiary essential?" It is, but not absolutely necessary. It is much less bother to the apiarist.

"Will bees store as much honey in one-pound sections as in two-pound?"

H. L. Leonard—I can see but little difference. With the present methods of contracting, there is scarcely any difference.

"How soon should surplus cases be put on in the spring?"

As soon as the honey comes in rapidly.

J. E. Crane—I think bees use bits of wax taken from the bottom of the hive at times in comb-building.

"Should crates be glassed on one or both sides?"

W. G. Larrabee—I have practiced both ways, and prefer glassing on only one side, and perhaps better, one side of each of the outside row of sections.

"When a swarm issues, will it pay to destroy the old queen?"

H. W. Scott—That depends very much upon the age of the queen, the desire of the apiarist as to increase, whether he is in the yard all of the time or not, and many other contingencies. If she is two years old I would usually kill her and keep the bees in the hive.

"Will bees produce as much honey where queen-excluding zinc is used, as they will without?" It makes no difference in the amount.

The members present expressed a wish that the next meeting be held in Middlebury, in January, 1895.

The convention then adjourned.

The attendance was good, the interest unwavering, and the meeting as a whole was one of the best that the Secretary ever attended. H. W. SCOTT, Sec.



Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Justly Indignant—Wintering Well.

Although only a beginner in apiculture, I feel a sense of indignation at the thought of honest honey-producers advocating the practice of keeping still and letting honey adulterators pursue their fraudulent work unmolested, thereby giving consumers ground for classing all honey-producers with such vile workers. I, for one, am happy to see the BEE JOURNAL crying out against it.

Bees are wintering well on the summer stands. MRS. IDA M. STAYT.
Blaine, Wash., Feb. 21.

Results of the Past Season.

This winter the mercury has ranged from 40 to 70 degrees the most of the time, and the bees on the summer stands have been flying.

I started in last spring with 7 colonies, and they did not do much but swarm—2 to 3 swarms from each hive, and some of the early swarms swarmed again, making 27 colonies to go into winter quarters. I got 201 sections of comb honey, making an average of 29 pounds per colony, spring count, and increased 200 per cent.—all Italians.

Well, about the price of honey: I never sell any for less than 25 cents a pound at home, except when I ship it, or for 5-pound lots I get \$1.00, and that is the bottom price for full sections; if not full, I sell according to quality. We have no white clover or

Alsike here, but there are about a dozen linden trees in our village that bloom, and I shall watch them next summer very closely to see if they yield any nectar, as most of my honey the past year was light. I don't know what it was gathered from, but it has a very pronounced flavor of something that I can smell in the fields, but I do not know the name. We generally have a good yield from golden-rod, but it failed last summer. The bee-business is very fascinating and enervating, as well as congregating and captivating (in May and June)—all of which I enjoy, even to an occasional sting. J. E. PRICHARD.
Port Norris, N. J., Feb. 9.

Severe Weather in North Texas.

We have had some very severe weather in North Texas since Jan. 24th. It snowed all day on Feb. 24th, and the 25th found about 4 inches of snow on the ground; but it is warm now, and not a bit of snow to be seen. My bees are in fine condition, yet I hear some complaint of bees freezing to death. W. H. WHITE.

Deport, Tex., Feb. 27.

Feeding Bees in Early Spring.

A very convenient method to feed is to take the common cigar-box and clean out the paper lining of the inside with hot water, which will also remove the offensive odor; and when the box is dry, melt a little beeswax and pour around the corners inside to stop any leaks that might waste the syrup. Cut a piece of shingle, or the cover of the box, so it will float in the syrup when put into the box; bore a few gimlet holes in the float. Set the box on top of the frames, pour in the syrup in the latter part of the day, so the bees will not be bothered by their neighbors. The float prevents the drowning of the bees, and should be small enough to float loosely.

Let the box stay, and when it needs replenishing, lift the cover off of the top story or cap, and pour the box full again, and cover up. The bees will carry the feed to their combs for future use. I have more bees to die between March and May than any other time. The top stay should fit closely to prevent the encroachment of robber-bees while feeding.

Marion, Ind.

JOHN RATLIFF.

The Season of 1893, Etc.

My report for 1893 is as follows: Colonies in the spring, 25; in the fall, 25; surplus, 800 pounds of extracted honey of good quality. It was a poor year here, and many got no surplus at all. Clover is not in very good condition, but covered just now with snow. I think that wheat is all O. K., but fruit is doubtful. There are not as many bees in this country as there were a few years ago. D. M. IMLAY.
Seward, Nebr., Feb. 22.

Arrangement for Wintering, Etc.

My bees enjoyed a good flight to-day, the thermometer registering 50 degrees in the shade. I have 39 colonies in all, packed in chaff hives of my own make. The outside case is made of 1-inch boards, and is 8 inches higher than the hive; the space I filled with wheat chaff. The sides, ends, and bottom is 2-inch space, to be filled with chaff. This makes a good winter hive. I have wintered bees in these hives the past three years, and have not lost a colony.

Last year was a poor one for honey. There was no basswood and no white clover. I got 1,430 pounds of golden-rod honey, most of it being comb honey in one-pound sections.

OTTO BANKER.

Golden Gate, Minn., March 3.

Fine Weather—Getting Pollen.

We have had very fine weather the last two weeks, and bees are getting pollen from crocus, which has blossomed fully three weeks earlier than usual.

I winter my five colonies of bees on the summer stands, with a wooden fence to the northeast and west, leaving the south open, and covering top with hot-bed sash, while around the hives I pile leaves. The hives I fix by putting on a super, inside of which at the bottom is a straw mat about one inch thick, over that a cork cushion three inches thick, and I leave the entrance wide open. In this way I have never lost a colony—in fact, my bees to-day are flying almost as strong as in summer.

ARTHUR A. BRIGGS.

Newton, Mass., March 12.

Wintering of Bees—Adulteration.

After selling my 50 colonies of bees in the fall of 1892, the next spring I bought 11 more colonies, and from them I have sold 300 pounds of comb honey in sections, saying nothing about what we have used. They increased to 18, and all had a good flight before this snow-storm. Being away from home at the time of the storm, there was ice on the front of the hives, which I cut away. My bees are in double-walled hives and winter cases, with good cushions on top made of basswood shavings and clover chaff, with a little frame made 8x10 inches, put over the cluster of bees on top of the brood-frames, and the cushion on top of that. I have never lost any colonies in that way, unless they became queenless or died of starvation. I have seen them clustered under this small frame over the brood-frames, and that gives them access to the honey at the top of the brood-frames. This is my plan for wintering bees, although bees have wintered in all conditions one could think of.

I see in the BEE JOURNAL for Feb. 15th, that Mr. Heddon thinks if we can't put down adulteration, the best thing we can do is to let it alone. The same argument would hold with any kind of fraud. Anything adulterated or mixed is a fraud or

deception for the money. Look at the adulteration in sugars already!

Now, Mr. York, I don't know as I have any right to interfere with the subject of adulteration, yet we could say the same of horse stealing or train robbery—any kind of crime that is committed—if we can't put it down, the best thing to do is to let it alone! Law don't stop crime, it only holds it in check. You may catch one culprit, you may check him, and he may never try it again; but another steps in, perhaps more shrewd than the first or the second. To hold a thing in check, is to fight it to the death. If we don't do this, adulteration will grow to such an extent that the market will be ruined. I have been asked the question, if I did not believe that the large honey-producers fed sugar syrup to get such big yields of honey! But when a man says let's let adulteration alone, that looks a little suspicious, as if he would favor adulteration.

IRA ADAMSON.

Winchester, Ind., Feb. 26.

Honey Thick as Maple Wax.

I expect to make bee-keeping my business. We are about 75 miles from the coast, in the San Bernardino valley, at an elevation of 1,700 feet above the sea level. The honey stored at this distance from the coast is much thicker than that 10 or 20 miles from the seashore. It is equal to the best maple wax, in body and flavor, and is not strong to the throat.

W. S. WINN.

Messina, Calif.

Bees in Splendid Condition.

The weather here is delightful. Bees wintered out-doors are in splendid condition, and are gathering their first pollen from soft maple blossoms to-day.

My experience in wintering bees in this locality convinces me that with plenty of stores, young queen, and young bees, coupled with plenty of good absorbent material over the cluster, and the inclination forward of the hive say 4 or 5 inches, bees may be very satisfactorily wintered on the summer stands, in single-walled hives.

C. O. CORNELIUS.

Ashland, Nebr., March 9.

The Shallow Hive Preferred.

Having used such hives for two years, with the greatest satisfaction, I can say that I wish for nothing better for comb or extracted honey. So well pleased am I that no more single-tier hives will be used, as I think that honey can be produced for one-fourth less than in other hives. Towards the close of the honey harvest, last year, the bees filled the upper tier of frames with honey, and nothing could be nicer for extracting. Besides, the honey-knife reaches across the frame, and obviates the necessity of wiring the frames, and one can have honey or brood for any use in the apiary. Also, for small swarms or nuclei,

or for manipulating in various ways, they have many advantages not found in any hive I ever used, and they are destined, in the near future, to have a large following. The queen should have the same room exclusive of the extra top and bottom-bar there is in the Langstroth frame, which, being lighter, will not sag; this alone is worth the difference in the cost of such hives. I use self-spacing end-bars, partly closed, with a $\frac{3}{8}$ -inch top-bar, and a following board.
C. E. WRIGHT.

Beaver Dam, Wis.

Did Well Last Season.

Bees did very well here last season until about July 1st, when dry weather set in, and the honey-flow stopped. I got from 23 colonies 550 pounds of honey. I have lost 5 colonies out of 27. I think the loss will be about 20 per cent.; a great many starved last fall. WINCHESTER RICKEL.

Burket, Ind., March 6.

Wintered Nicely—Gathering Pollen.

I wish to report that my bees have wintered nicely so far, on the summer stands, with an outside winter case. To-day they are working lively, bringing in big loads of pollen—I think from maple. This is just 15 days earlier than the first pollen last spring. We hope, by this early start, to have a good crop of honey the coming season.
L. POSEY.

Torch, Ohio, March 5.

Spare Not; Cut to the Core.

In regard to the "call" made concerning the sale of adulterated honey, I would say for myself, *positively*, spare not, but cut to the core; and I think I am safe in saying that all the bee-men with whom I am acquainted would say "Amen" to the anti-adulteration law of Minnesota, as published in the BEE JOURNAL recently. I think it a crime to cause people to eat such articles, ignorantly.
H. F. JOHANNING.

Etiwanda, Calif.

Colonies of Young Bees.

I think I am ahead of my bee-keeping friends in this latitude, being the first bee-keeper who has 11 colonies of young bees of the "vintage" of 1894.

Last fall I put into the cellar 11 hives of small nuclei, to experiment with, and see if I could not bring them through the winter, and spring them, too. They were short in stores, and in the last week of January, about 30 days ago, I think, I took them out of the cellar and fed them about $\frac{3}{4}$ of a pound of syrup and honey, and put them back the same night. And yesterday (March 2nd), it being the first warm day since feeding them, I brought them out to feed again; and upon examining them I was surprised to find that every hive contained a nice colony of young bees that had

never seen the light of day before; in fact, they were out nearly three hours before they commenced to fly much.

I found not one cell of brood in any hive, and saw only 3 or 4 eggs in one. I expected to find a handful of young bees, but was not prepared to find the numbers I did. I have wintered my bees successfully this winter, but I have not "sprung" them yet.

Fremont, O. CHAUNCEY REYNOLDS.

Prevention of Swarming.

On page 89, under "Comb Honey and Swarming," Mr. F. Coverdale says: "I can't prevent swarms," etc. I think we Hoosiers can prevent swarming, and, besides, get from each and every colony (always provided the season is an average one for the flowers to secrete nectar) from 250 to 400 pounds of honey. I call this system of handling bees the "Daniel Leaming System." I have lots of manuscript and correspondence on this plan which I propose to bring forth in the future. In fact, it is the only successful plan to manage the apiary for profit.
EDWARD S. POPE.

Indianapolis, Ind.

Poor Season Last Year.

I think I had better not say much about bees, for I lost nearly all that were in dove-tailed hives, although there was lots of honey in some of them. (20 to 25 pounds in some), but none empty. The bees in box-hives pulled through. It was cold and wet up to June of last year, and they built up slowly. There was only one week of honey-flow the last of June, then everything dried up. I had 4 swarms from 6 colonies, and put them on partly-filled combs. I fear that they will come out slim in the spring, for they appeared to be nearly all old bees. Last year was the second bad one—not to exceed 15 pounds of surplus honey.

EDWARD H. BEARDSLEY.

Deer Park, Ills., March 7.

Feeding Bees—Skunks Again.

It is 11 p.m., and I am sitting on my veranda in shirt sleeves, feet resting on my bee-hive under the window, and listening to the bees' quiet, self-satisfied hum. The mocking-birds are making sweet melodies in a large live-oak in the yard. The BEE JOURNAL came to-night, so after supper I read it carefully through.

On page 266, S. W. B. says he fed his bees syrup on plates. Now having been a young bee-keeper myself 30 years ago, I have since then learned a little (not all) about bees.

Now if S. W. B. will take that syrup and warm it a little, and then take the *outside* frame from the hive, spread the others until he comes to the side of the cluster of bees, then lay the removed comb on one side, and gently pour the syrup over the comb, letting it run into the cells and cool there, so none will run off when held perpendicularly, then hang it next to the clus-

ter, he will never drown a bee, and it is right where they can care for it, remove, and store it where they choose. This is the most natural way I ever tried, the simplest and easiest. No bad results ever follow.

As to tartaric acid, I say nothing, never having tried it. An old, tough, black comb is more preferable to bright ones, being tough and strong.

S. W. B., try this plan *once*, if you ever need to feed your bees, then report results.

We are in the midst of orange-bloom now, and my bees are rolling in the amber nectar right royally. We have had no frost hard enough to freeze a potato lying on top of the ground, all winter.

On page 283 I see that Mrs. Jennie Atchley wants the best remedy for getting rid of skunks. A good dog will rarely let them come around the premises, and I think that is the best remedy.

Now I would like to ask a question or two: Are not skunks and polecats one and the same? And what injury are they to the bees? Never having been troubled with skunks or polecats, I am at a loss to know whether they eat bees, honey or scent the honey. I find the innocent toad of far more mischief than all other animals, and he will sit on the front of a hive as demure as a kitten, and show you how slick he can catch and devour your best Italians, and wink every time he secures one.

C. F. GREENING.

Orange Park, Fla., March 8.

Don't Let Up on Adulterators.

The editor asks on page 200, if his readers want him to let up on the agitation against the adulteration of honey. I answer emphatically *No*—not until the adulterators let up on their business. Keep up the racket until they are made to feel that the sentiment of all the noble brotherhood of beekeepers is, that adulteration is a *fraud* which no honest man would be guilty of. It is a villainous fraud upon the consumer, and a vile, low-down scheme to get the advantage of the honest man, by placing on the market a cheap, inferior article in competition with the pure and wholesome product, as it comes from the hand of Nature. May the "Old Reliable" always ring clear on the question of adulteration.

Whittier, Calif.

ALLEN BARNETT.

Convention Notices.

PENNSYLVANIA.—The Venango County Beekeepers' Association will meet in the City Hall at Franklin, Pa., on Monday, April 23, 1894, at 1 o'clock p.m. All interested are requested to be present. C. S. PIZER, Sec. Franklin, Pa.

TEXAS.—The Texas State Bee-Keepers' Association will hold their 16th annual meeting at Greenville, Tex., on Wednesday and Thursday, April 4 and 5, 1894. Everybody invited. No hotel bills to pay. We expect a large meeting and a good time. Don't fail to come. Beeville, Tex. E. J. ATCHLEY, Sec.

Honey & Beeswax Market Quotations.

CHICAGO, ILL., Feb. 17.—We are encouraged by last week's business, disposing of considerable light honey in a small way at low prices—13@14c. It is impossible to obtain higher prices at present. We quote: No. 1, 13@14c.; extracted, 5@6½c. Beeswax, 21@23c. We have inquiries for beeswax, with none to offer. J. A. L.

ALBANY, N. Y., Jan. 14.—The honey market is in a slow and unsatisfactory condition. Very little demand for any and large stocks of both comb and extracted. Quotations would be only nominal. H. R. W.

CHICAGO, ILL., Mar. 15.—There has been a good deal of comb honey sold in the last few days, so that our stock of the best grades is now reduced. We obtain 14@15c. for choice white. Dark is hard to move at 10@12c. Extracted is very quiet, selling at from 4@7c. Beeswax is in good demand at 23@25c.

R. A. B. & Co.

NEW YORK, N. Y., Jan. 24.—There is no change in our market. Trade remains dull with plenty of stock on hand of both comb and extracted honey. Beeswax is selling on arrival at 26@27c. H. B. & S.

CINCINNATI, O., Mar. 7.—Demand for honey is slow in sympathy with the general dull business all over the country. We quote extracted honey at 4@8c. a lb.; comb, 12@15c. for best white. Beeswax is in fair demand, at 22@25c. for good to choice yellow. C. F. M. & S.

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CHAS. ISRAEL & BROS., 110 Hudson St.

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HAMBLIN & BEARDS, 514 Walnut Street.
CLEMONS-MASON COM. CO., 521 Walnut St.

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